Use Attainability Analysis

for

WBID 0478 Grantham Creek

Submitted by SES Inc.

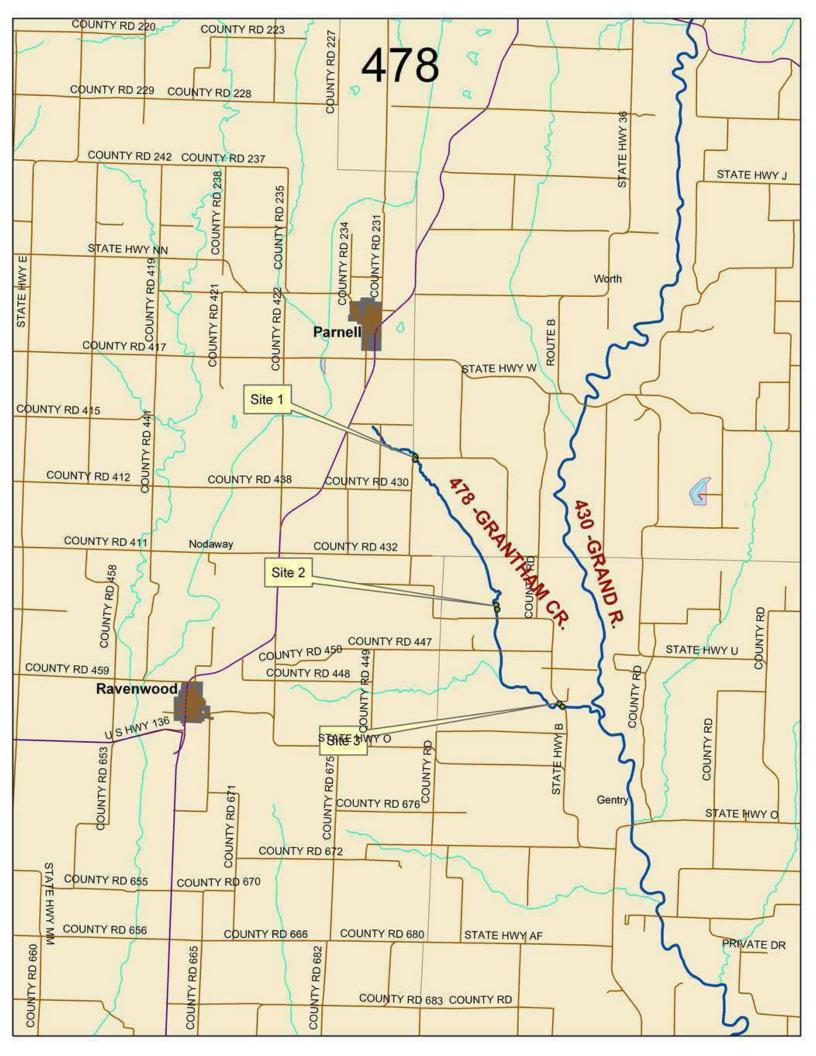
to Missouri Department of Natural Resources Water Protection Program

Date received: November 14, 2007

Field Data Sheets for Recreation Use Stream Surveys

Data Sheet A - Water Body Identification

	Body Infori		(For water bod	y being survey	red)		
Water Boo	dy Name (f	rom USGS 7.	ō' quad):	Grantham	Creek		
Missouri V	Vater Body	dentification	(WBID) Numbe	er: 478	3		
0 11 11 11 11	<u> </u>	10000101					
8 digit HU	C code:	10280101		County	r: Nodawa	у	
l la atua aua	Land Das		Table IIV	TOEN	Dagu	0 00	
Opstream	Legai Des	cription (from	rable H):	T65N	R33W	Sec. 28	
Downstrac	om Logal F	escription (fro	m Table UV	T64N	R32W	Sec. 18	
Downstie	am Legai L	escription (irc	illi Table n).	10411	RSZVV	Sec. 16	
Number o	f sites eval	nated.	3				
INGITIDEI O	i siles evai	uateu.	3				
List all site	numbers	listed conseq	uently upstrean	n to downstrea	m·		
Liot all oite	, marriboro,	notou conceq	aonay apoa oan	i to downou ou			
	1, 2, 3						
	-, -, -						
Site Loca	tions Map	(s): Attach a r	nap of the entire	e segment with	n assessment	sites clearly labeled.	
	-	that may be	•	· ·		•	
,		,					
II. Facility	Informati	on (list all per	mitted discharg	es to the wate	body segme	nt)	
Facility Na	ame(s) and	Permit Numb	er(s):				
	Parnell W	/WTF					
	MO 0125	636					
		lease print leg					
Name of S	Surveyor:	Gilisa Goule	d	Teleph	one Number:	913.307.0054	
	· /= ı						
Organizati	ion/Employ						
	SES, Inc						
Diagram	!£4 a.a.4					la bassa and that the fames is	
	-	ou nave com	pieted ali secti	ons, checked	an applicab	le boxes, and that the form is	
complete							
Cianad.	ailice e e	uld		Dete	40.04.07	,	
Signed:	gilisa go	uiü		Date:	10.04.07		



WBID#	478
Site #	1

Field Data Sheets For Recreatiuonal Use Stream Surveys

Data Sheet B-Site Characterization

Date & Time:	9.18.07	,	17:15	Site Location	Site Location Description (e.g. road crossing):				
Personnel:	D. Dod	son & G. Gould			E. of Highway 46				
Current Weat	her Cond	ditions: cloudy		Facility Nar	me:	Parnell WWTF			
Weather cond	litions fo	r the past 10 days:	no precip	Permit Nun	nber:	MO 0125636			
Drought cond	itions?: I	No drought ☑ ; Pha	ase I □ ; Phase	 all □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆		
Site Location	n:								
		(Universal Transve	rse Mercator Pr	rojection, In	Meters				
Site 01	Easting	ı (UTM X):	Northing (UTN	М Y):		Horizontal Ac	curacy:	Meters	
		1363607		4474369				6.1	
Site 11	Easting	g (UTM X):	Northing (UTN	M Y):		Horizontal Ac	curacy:	Meters	
		0363600		4474289				11.3	
	<u>.l</u>	000000		11111200				11.0	
Photos:	т —			 		1	T		
Photo ID#	F	Photo Purpose	Photo ID#:	Photo Purpose		Photo ID#:	Photo	Purpose	
38		upstream	39	downstream					
Photo ID#	P	Photo Purpose	Photo ID#	Photo Purpose		Photo ID#	Photo	Purpose	
Photo ID#	P	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo	Purpose	
Uses Observ	ed:								
☐ Swimming]	☐ Skin diving	□ SCUBA di	iving	☐ Tubin	g	☐ Water SI	kiing	
☐ Wind surfi	ng	☐ Kayaking	□ Boating		□ Wadir	ng	□ Rafting		
☐ Hunting		☐ Trapping	☐ Fishing		☑ None	of the above	☐ Other:		
Describe:									

WBID#	478
Site #	1

Field Data Sheets for Recreational Use Stream Surveys

	Data Sneet B-	Site Characterization (Conti	nuea)	
Surrounding Conditi	ions:			
☐ City/County parks	□ playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass sign	☑ Steep Slopes	☐ Other:
Comments:		·		•
none				
Evidence of Human	Haar			
□ Roads		☐ Dock/platform	Compine Sites	□ Dono owings
☐ Roads ☐ RV/ATV Tracks	☐ Foot path/prints ☐ Fire pit/ring	☐ NPDES Discharge	☐ Camping Sites☐ Fishing Tackle	☐ Rope swings ☐ Livestock watering
comments/other:	☐ File piviling	LINFUES DISCHARGE	LI FISHING LAUNIC	LIVESTOCK Watering
none				
110110				
1				
Substrate:				
Substrate: % Cobble	% Gravel	% Sand % Silt	% Mud/	Clay % Bedrock
	% Gravel	% Sand % Silt 100	% Mud/0	Clay % Bedrock
% Cobble	% Gravel		% Mud/	Clay % Bedrock
	% Gravel		% Mud/0	Clay % Bedrock
% Cobble Aquatic Vegatation:	% Gravel		% Mud/0	Clay % Bedrock
% Cobble	% Gravel		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:	% Gravel		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:	% Gravel		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:			% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation: none				Clay % Bedrock None □ Other:
% Cobble Aquatic Vegatation: none Water Characteristic	es: □ Sewage ☑ Clear	100 ☐ Musky ☐ Chem ☐ Green ☐ Gray	nical ☑ I	None □ Other: Milky □ Other:
% Cobble Aquatic Vegatation: none Water Characteristic Odor:	e s: □ Sewage	100 ☐ Musky ☐ Chem ☐ Green ☐ Gray	nical ☑ I □ I sediments ☑ I	None □ Other:

WBID # 478 Site # 1

Organization: SES, Inc.

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization (continued)

	Additional Stream Mor	oholoav:	(Record isolated pools or other features identified during the survey that may support recreations	al uses)
--	-----------------------	----------	--	----------

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access recalion (m)				
	<u> </u>				
omments: (Please re	ecord any additional comments	here.)			
	none				
lease verify that yo	ou have completed all s	ections, checke	ed all applicable	boxes, and that the f	orm is

Position: field team leader

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																		Disso	lved Ox	ygen		
	Waterbo	ody ID:	478			Site #:	1									Date:	9.18.07			Time:	17:17	
	Estimate	ed Chanr	nel Incisi	on:	4.0	(m) (hei	ight betw	een low b	ank wid	th and wa	ater)									13.9	(mg/L)	
			•			-		izontal Ac	-		,							'				
		UTM X UTM X		0363600			UTM Y: UTM Y:		4474369		•	+/-	6.1	(meters)	•	Di	ssolved	Oxygen:			(% sat)	
						1)					•				•		Specifi	c Cond:			(µS/cm)	
			Width: ength of I				2.3	(meters)		ength of 20x avera	-	_		150	(meters)	Wa	ter Temr	erature.		22	(°C)	
	(10 dete	ATTITIC LC	aigui oi i	(cacii)					(2	ox avera	ge streat	ii widiii)				, vv a	ici i cini	ociature.		22	()	
	Fiel	d Staff:	Drew	Dodson		and	Gilisa G	ould						•								
										Tra	nsect C	ross-Se	ction									
	0	1	0	2	0	3	(04	()5	0)6		07	0	8	0	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
Left Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.4	0.01	0.5	0.01	0.2	0.00	0.3	0.00	0.2	0.01	0.1	0.01	0.3	0.01	0.1	0.01	0.1	0.05	0.2	0.01	0.4	0.01
2	0.7	0.01	0.9	0.00	0.4	0.00	0.5	0.00	0.4	0.01	0.2	0.00	0.5	0.05	0.2	0.01	0.2	0.05	0.4	0.05	0.7	0.01
3	1.1	0.00			0.5		0.8	0.00	0.5		0.3				0.3		0.3	0.05	0.5	0.10	1.1	0.00
4	1.5					0.00	1.1	0.00	0.7		0.4		1.1	0.00	0.4		0.4	0.05	0.7	0.15	1.5	0.00
5	1.9			0.00	0.9		1.4	0.00	0.9	0.01	0.5		1.4	0.00	0.5		0.5	0.05	0.9	0.15	1.9	0.00
6	2.2	0.00				0.00	1.6	0.00	1.1		0.5		1.6		0.5		0.5	0.10	1.1	0.15	2.2	0.00
7	2.6		3.2	0.00		0.00	1.9		1.3		0.6						0.6		1.3	0.15	2.6	0.00
, S	3.0					0.00	2.2	0.00					2.2		0.7		0.7	0.05	1.4	0.10	3.0	0.00
0	3.3			0.00				0.00			0.8		2.4		0.8		0.8	0.01	1.6	0.05	3.3	0.10
zight Bank		0.00	4.6	0.00	1.8	0.00	2.7	0.00	1.8	0.00	0.9	0.00	2.7	0.00	0.9	0.00	.9	0.00	1.8	0.00	3.7	0.10
eature Type	3.1	0.00	7.0	0.00	1.0	0.00	2.1	0.00	1.0	0.00	0.5	0.00	2.1	0.00	0.7	0.00	.,	0.00	1.0	0.00	5.1	0.00
iffle, run, or poo	ı rı	ın	rı	ın	rı	ın	r	un	r	ın	rı	ın	r	un	ru	ın	ru	ın	ru	ın	ru	n

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 10.04.07

WBID#	478
Site #	2

Field Data Sheets For Recreatiuonal Use Stream Surveys

Data Sheet B-Site Characterization

Date & Time:	9.18.07	7 18:00	<u> </u>	Site Location	on Descrip	tion (e.g. road	crossing):	
Personnel:	D. Dod	son & G. Gould			upstream	of C.R. #1		
Current Weatl	her Con	ditions: cloudy		Facility Nar	me:	Parnell WWT	F	
Weather cond	litions fo	r the past 10 days: ı	no precip	Permit Nun	nber:	MO 0125636		
Drought cond	itions?: I	No drought ☑ ; Pha	se I □ ; Phase	։ II □ ; Phas	e III □ ; PI	nase IV □ ; Ur	nknown 🗆	
Site Location								
		(Universal Transver			Meters			
Site 01	Easting	g (UTM X):	Northing (UTN	И Y):		Horizontal Ac		Meters
		0365615		4470687			5.8	}
Site 11	Easting	ı (UTM X):	Northing (UTN	И Y):		Horizontal Ac	curacy:	Meters
	0365639			4470574			8.5	5
Photos:								
Photo ID#	F	Photo Purpose	Photo ID#:	Photo Purpose		Photo ID#:	Photo Purpose	
40		upstream	41		downstrea	am		
Photo ID#	F	Photo Purpose	Photo ID#	Photo Purpose		Photo ID#	Photo Purpose	
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo Purpose	
				<u> </u>				
Uses Observ	ed:							
☐ Swimming)	☐ Skin diving	☐ SCUBA d	iving	☐ Tubin	g	☐ Water Skiing	
☐ Wind surfi	ng	☐ Kayaking	☐ Boating	□ Wadi		ng	□ Rafting	
☐ Hunting		☐ Trapping	□ Fishing		☑ None	of the above	☐ Other:	
Describe:								

WBID#	478
Site #	2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B- Site Characterization (Continued)

Surrounding Conditi	ons:			
☐ City/County parks	☐ playgrounds	☐ MDC conservation lands	☐ Urban areas	☐ Rural Residential
☐ Campgrounds	☐ State parks	□ National Forests	☐ Nature trails	☐ Stairs/walkways
☐ Boating accesses	☐ Fence	☐ No tresspass sign	☑ Steep Slopes	☐ Other:
Comments:	.1		•	,
none				
<u></u>				
Evidence of Human	Use:			
☐ Roads	☐ Foot path/prints	☐ Dock/platform	☐ Camping Sites	☐ Rope swings
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharge	☐ Fishing Tackle	☐ Livestock watering
comments/other:		-		
none				
4				
Substrate:				
Substrate: % Cobble	% Gravel	% Sand % Silt	% Mud/0	Clay % Bedrock
	% Gravel	% Sand % Silt 100	% Mud/	Clay % Bedrock
% Cobble	% Gravel		% Mud/	Clay % Bedrock
	% Gravel		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:			% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:	% Gravel		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:			% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:			% Mud/0	Clay % Bedrock
% Cobble Aquatic Vegatation: 80% algae	e on substrate		% Mud/	Clay % Bedrock
% Cobble Aquatic Vegatation:	e on substrate	100		
% Cobble Aquatic Vegatation: 80% algae	e on substrate			Clay % Bedrock None Other:
% Cobble Aquatic Vegatation: 80% algae Water Characteristic	e on substrate	100	nical ☑ I	
% Cobble Aquatic Vegatation: 80% algae Water Characteristic Odor:	e on substrate	100 ☐ Musky ☐ Cher ☐ Green ☐ Gray	nical ☑ I □ I sediments ☑ I	None □ Other:

WBID # 478 Site # 2

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization (continued)

Additional Stream Morphology: (Record isolated pools or other features identified during the survey that may support recreational uses)

Channel Feature | Distance from | Width (m) | Length (m) | Median Depth (m) | Max Depth (m)

Channel Feature	Distance from access location (m)	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	,				
L			<u> </u>		
Comments: (Please red	cord any additional comments	nere.)			
none					
Please verify that yo complete.	u have completed all s	ections, checke	d all applicable	boxes, and that the	form is
Surveyor's Signature:	gilisa gould		_Date of Survey:	9.18.07	
Organization:	SES, Inc		Position:	field team leader	_

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																		Disso	lved Ox	ygen		
			478													Date:	9.18.07			Time:	18:00	
	Estimat	ed Chanr	nel Incisi	on:	4.0	(m) (hei	ght betw	een low b	ank wid	th and wa	iter)					Di	issolved (Oxygen:		12.6	(mg/L)	
	01	UTM X	<u>: </u>	0365613	5		UTM Y:		447068	7		+/-	5.8	(meters)	-	Dissolved Oxygen: (% sat)						
	11	UTM X	:	0365639	9	•	UTM Y:		447057	4		+/-	8.5	(meters)	-		Specifi	c Cond:			(μS/cm)	
			Width: ength of I				3.3	(meters)		ength of	-	-		150	(meters)	Wa	40m Tomom			21.0	(°C)	
	(10 dete	erinne Le	engui oi i	Reach)					(2	20x avera	ge streat	n widin)				wa	ter Temp	erature:		21.8	('C)	
	Fie	ld Staff:	Drew	Dodson		and	Gilisa G	ould						-								
										Tra	nsect C	ross-Se	ction									
	()1	0	12	0	13	(04	()5	0	16		07	08	8	0:	9	1	0	1	1
Station	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m
eft Bank	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0.6	0.05	0.2	0.01	0.3	0.01	0.4	0.01	0.6	0.01	0.3	0.10	0.1	0.01	0.2	0.01	0.4	0.01	0.2	0.01	0.5	0.01
2	1.3	0.01	0.4	0.01	0.5	0.01	0.7	0.01	1.3	0.05	0.5	0.15	0.2	0.01	0.4	0.01	0.7	0.01	0.4	0.01	0.9	0.01
3	1.9	0.00	0.5	0.01	0.8	0.05	1.1	0.01	1.9	0.00	0.8	0.05	0.3	0.05	0.5	0.01	1.1	0.01	0.5	0.01	1.4	0.00
4	2.6	0.01	0.7	0.01	1.1	0.01	1.5	0.00	2.6	0.00	1.1	0.00	0.4	0.05	0.7	0.05	1.5	0.01	0.7	0.01	1.8	0.00
5	3.2	0.00	0.9	0.01	1.4	0.01	1.9	0.00	3.2	0.01	1.4	0.01	0.5	0.05	0.9	0.05	1.9	0.01	0.9	0.01	2.3	0.00
6	3.8	0.00	1.1	0.01	1.6	0.01	2.2	0.01	3.8	0.01	1.6	0.05	0.5	0.05	1.1	0.05	2.2	0.05	1.1	0.01	2.8	0.00
7	4.5	0.05	1.3	0.01	1.9	0.01	2.6	0.05	4.5	0.01	1.9	0.05	0.6	0.05	1.3	0.05	2.6	0.01	1.3	0.01	3.2	0.05
8	5.1	0.15	1.4	0.01	2.2	0.01	3.0	0.05	5.1	0.05	2.2	0.01	0.7	0.01	1.4	0.05	3.0	0.05	1.4	0.05	3.7	0.05
9	5.8	0.10	1.6	0.01	2.4	0.01	3.3	0.05	5.8	0.05	2.4	0.01	0.8	0.01	1.6	0.01	3.3	0.05	1.6	0.05	4.1	0.01
ight Bank	6.4	0.00	1.8	0.00	2.7	0.00	3.7	0.00	6.4	0.00	2.7	0.00	0.9	0.00	1.8	0.00	3.7	0.00	1.8	0.00	4.6	0.00
eature Type																						
ffle, run, or poo	**		ın	rı	ın	r	un	r	un	rı	ın	r	un	ru	n	ru	n	ru	ın	ru	n	

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed: gilisa gould Date: 10.04.07

WBID#	478
Site #	3

Field Data Sheets For Recreatiuonal Use Stream Surveys

Data Sheet B-Site Characterization

Date & Time:	9.18.07	18:42	2	Site Location Description (e.g. road crossing):						
Personnel:	D. Dod	son & G. Gould		Highway B						
Current Weat	her Cond	ditions: cloudy		Facility Name: Parnell WW1			F			
Weather conditions for the past 10 days: no precip.				Permit Nun	Permit Number: MO 0125636					
Drought cond	itions?: N	No drought ☑ ; Pha	ıse I □ ; Phase	ı II □ ; Phas	e III □ ; P	hase IV □ ; Ur	nknown 🗆			
-										
Site Location	١٠									
		(Universal Transve	rse Mercator P	rojection, In	Meters					
Site 01	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Ac	curacy:	Meters		
		0367177		4468237				2.4		
Site 11	Easting	ı (UTM X):	Northing (UTI	M Y):		Horizontal Ac	curacy:	Meters		
		0367258	9 (4468159			<u> </u>	3.0		
		0307230		4400100				3.0		
Photos:			_	_			_			
Photo ID#	F	Photo Purpose	Photo ID#:	Photo ID#: Photo Purpose			Photo F	Purpose		
43		upstream	44	downstrear	n					
Photo ID#	F	Photo Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo F	Purpose		
Photo ID#	F	hoto Purpose	Photo ID#	Photo F	Purpose	Photo ID#	Photo F	Purpose		
Uses Observ	ed:									
☐ Swimming	1	☐ Skin diving	□ SCUBA d	iving	☐ Tubin	g	□ Water Ski	ing		
☐ Wind surfi	ng	☐ Kayaking	□ Boating		□ Wadir	ng	☐ Rafting			
☐ Hunting		☐ Trapping	☐ Fishing			of the above	☐ Other:			
Describe:		I — mapping	T T T T T T T T T T T T T T T T T T T		T Hone	01 1110 1100 10	<u> </u>			

WBID#	478
Site #	3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B- Site Characterization (Continued)

Surrounding Conditi	ions:					
☐ City/County parks	☐ playgrounds	☐ MDC conservati	on lands	☐ Urban areas	☐ Rural Reside	ntial
☐ Campgrounds	☐ State parks	□ National Forests	3	☐ Nature trails	☐ Stairs/walkwa	ıys
☐ Boating accesses	☐ Fence	☐ No tresspass sig	gn		☐ Other:	
Comments:						
none						
Evidence of Human	l lea:					
□ Roads	☐ Foot path/prints	☐ Dock/platform		☐ Camping Sites	☐ Rope swings	
☐ RV/ATV Tracks	☐ Fire pit/ring	☐ NPDES Discharg	ıΔ	☐ Fishing Tackle	☐ Livestock wat	erina
comments/other:	Li ile piviling	LI IVI DEO DISONAIS	y c	LI I ISINING TOOKIO	LI LIVOSIOGIC VIGA	.ciniy
none						
1						
Substrate:						
Substrate: % Cobble	% Gravel	% Sand	% Silt	% Mud/	•	drock
	% Gravel	% Sand 90	% Silt	% Mud/ 10	•	drock
% Cobble	% Gravel		% Silt		•	drock
	% Gravel		% Silt		•	drock
% Cobble Aquatic Vegatation:	% Gravel		% Silt		•	drock
% Cobble	% Gravel		% Silt		•	drock
% Cobble Aquatic Vegatation:	% Gravel		% Silt		•	drock
% Cobble Aquatic Vegatation:	% Gravel		% Silt		•	drock
% Cobble Aquatic Vegatation:			% Silt		•	drock
% Cobble Aquatic Vegatation: none Water Characteristic	es:	90	% Silt	10	•	
% Cobble Aquatic Vegatation: none				ical ☑		her:
% Cobble Aquatic Vegatation: none Water Characteristic Odor:	es: □ Sewage	90	□ Chem	ical	None □ Ot	her:

WBID # 478 Site # 3

Field Data Sheets for Recreational Use Stream Surveys

Data Sheet B - Site Characterization (continued)

Additional Stream Morphology	: (Record isolated pools or other fe	eatures identified during the survey that	it may support recreational uses)
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Channel Feature	Distance from	Width (m)	Length (m)	Median Depth (m)	Max Depth (m)
	access location (m)				
			•		
Comments: (Please re	cord any additional comments I	here.)			
	none				
Please verify that yo complete.	ou have completed all s	ections, checke	d all applicable	boxes, and that the	form is
Surveyor's Signature:	gilisa gould		Date of Survey:	9.18.07	
Organization:	SES, Inc		Position:	field team leader	

Field Data Sheets for Recreational Use Stream Surveys Data Sheet C - Field Survey Results

																			Disso	lved Ox	ygen		
	Wa	aterbo	dy ID:	478			Site #:	3									Date:	9.18.07			Time:	18:54	
	Est	timate	d Chann	nel Incisio	on:	2.0	(m) (hei	ght betw	een low b	ank widt	h and wa	iter)					Di	issolved (Oxygen:		12.7	(mg/L)	
			ation - I	•	UTM X) 0367177		-	Y), Hor UTM Y:	izontal Ac	curacy I 446823		•		OM) 2.4	(meters)		Di	issolved (Oxygen:			(% sat)	
	1	11	UTM X		0367258			UTM Y:		4468159)		+/-	3	(meters)	•						(µS/cm)	
				Width:				2.3	(meters)		ength of	-	-		150	(meters)	***						
	(To	o detei	rmne Le	ngth of F	Reach)					(2	0x avera	ge strear	n width)				Wa	ter Temp	erature:		22.3	(°C)	
		Field	d Staff:	Drew	Dodson		and	Gilisa G	ould						<u>-</u>								
											Tra	nsect C	ross-Se	ction									
		01	1	0	2	0	3	()4	0	5	0	6	(07	08	3	09	9	1	0	1:	1
Station		stance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)	Distance (m)	Depth (m)
eft Bank		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1	0.2	0.05	0.3	0.01	0.2	0.01	0.4	0.01	0.3	0.01	0.5	0.01	0.2	0.01	0.1	0.01	0.2	0.01	0.3	0.01	0.1	0.01
	2	0.4	0.10	0.5	0.01	0.4	0.01	0.7	0.01	0.5	0.01	0.9	0.01	0.4	0.01	0.2	0.01	0.4	0.05	0.5	0.01	0.2	0.01
	3	0.5	0.10	0.8	0.05	0.5	0.05	1.1	0.01	0.8	0.01	1.4	0.01	0.5	0.01	0.3	0.01	0.5	0.01	0.8	0.00	0.3	0.01
	4	0.7	0.15	1.1	0.01	0.7	0.01	1.5	0.00	1.1	0.01	1.8	0.01	0.7	0.01	0.4	0.01	0.7	0.00	1.1	0.05	0.4	0.01
	5	0.9	0.10	1.4	0.00	0.9	0.01	1.9	0.00	1.4	0.00	2.3	0.01	0.9	0.01	0.5	0.01	0.9	0.00	1.4	0.05	0.5	0.01
	6	1.1	0.10			1.1	0.01	2.2	0.00	1.6	0.01	2.8		1.1	0.01	0.5	0.01	1.1	0.00	1.6	0.10	0.5	0.01
	7	1.3	0.05	1.9	0.01	1.3		2.6	0.01	1.9		3.2		1.3	0.01	0.6	0.01	1.3	0.00	1.9	0.05	0.6	0.01
	8	1.4	0.05	2.2	0.01	1.4	0.01	3.0		2.2		3.7		1.4	0.01	0.7	0.01	1.4	0.01	2.2	0.05	0.7	0.01
	9_	1.6	0.01	2.4		1.6		3.3	0.01	2.4		4.1		1.6		0.8	0.01	1.6	0.01	2.4	0.01	0.8	0.01
ight Banl eature Type		1.8	0.00	2.7	0.00	1.8	0.00	3.7	0.00	2.7	0.00	4.6	0.00	1.8	0.00	0.9	0.00	1.8	0.00	2.7	0.00	0.9	0.00
ffle, run, or po	•		rı	ın	r	un	rı	ın	rı	ın	r	un	ru	n	n run		run run			n			

Notes: Transects will be measured beginning on left descending bank (0 depth) and finishing on right descending bank (0 depth). This width is the wetted width

GPS locations corresponds to Transect 01 and 11. Transects ordered in upstream to downstream order.

Depth measurements taken at 10 equally spaced locations along transect (determine by dividing wetted width by ten)

Mark dry depth measurements as 0; record actual measurements to 0.01 meter unless depth is too deep to measure (then record as > 1)

All measurements to be taken to the nearest 0.01 meter.

Signed:	gilisa gould	Date:	10.04.07	

WBID# 0478



Site# 1 Photo ID# 38, Upstream



Site# 2 Photo ID# 40, Upstream



Site# 1 Photo ID# 39, Downstream



Site# 2 Photo ID# 41, Downstream

WBID# 0478



Site# 3 Photo ID# 43, Upstream



Site# 3 Photo ID# 44, Downstream